**Fig.1**

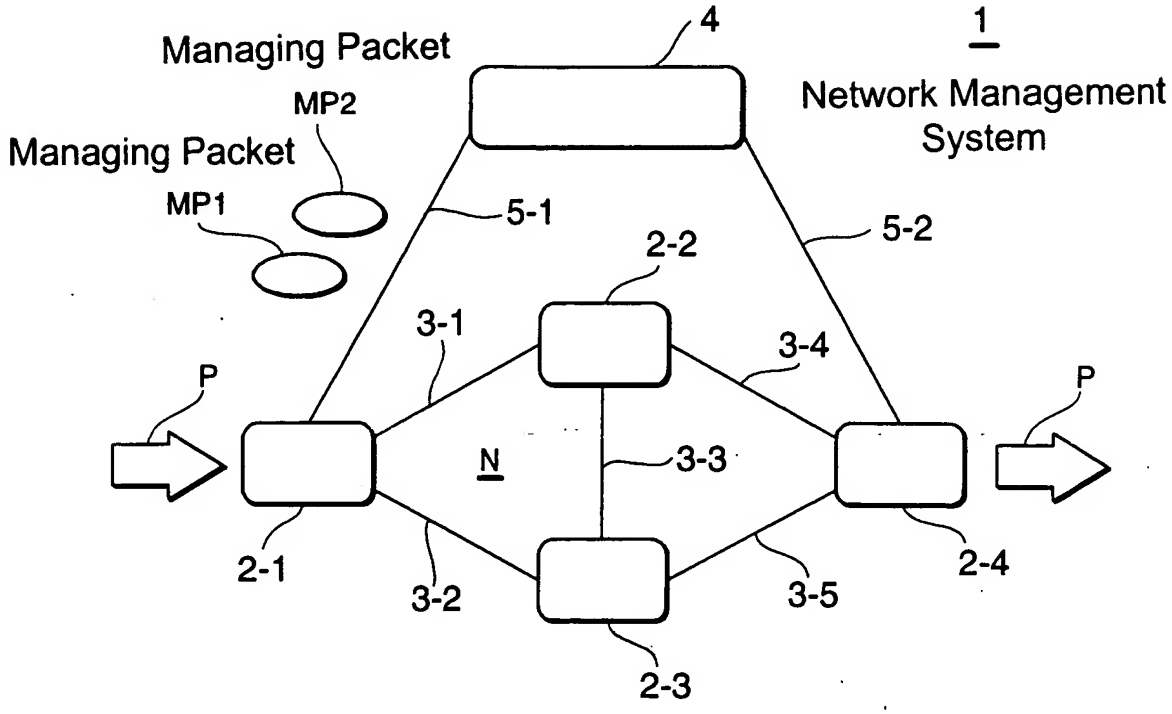



**Fig.2**

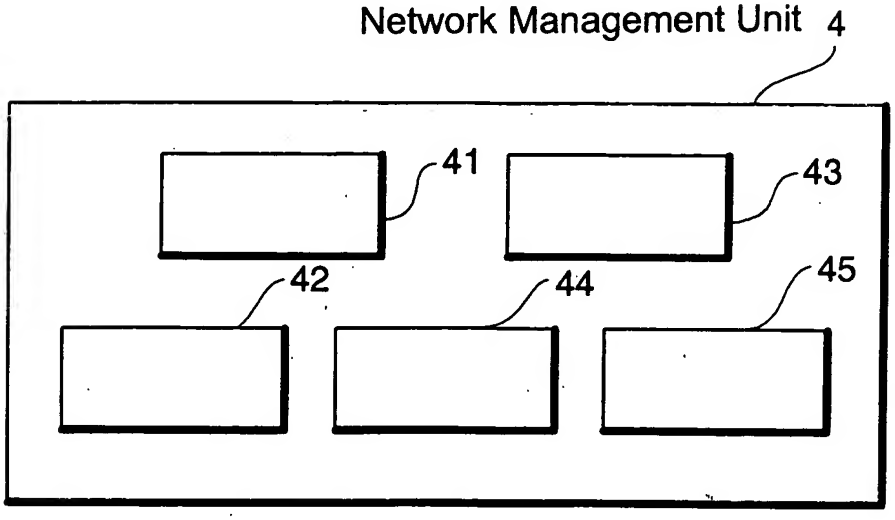


Fig.3

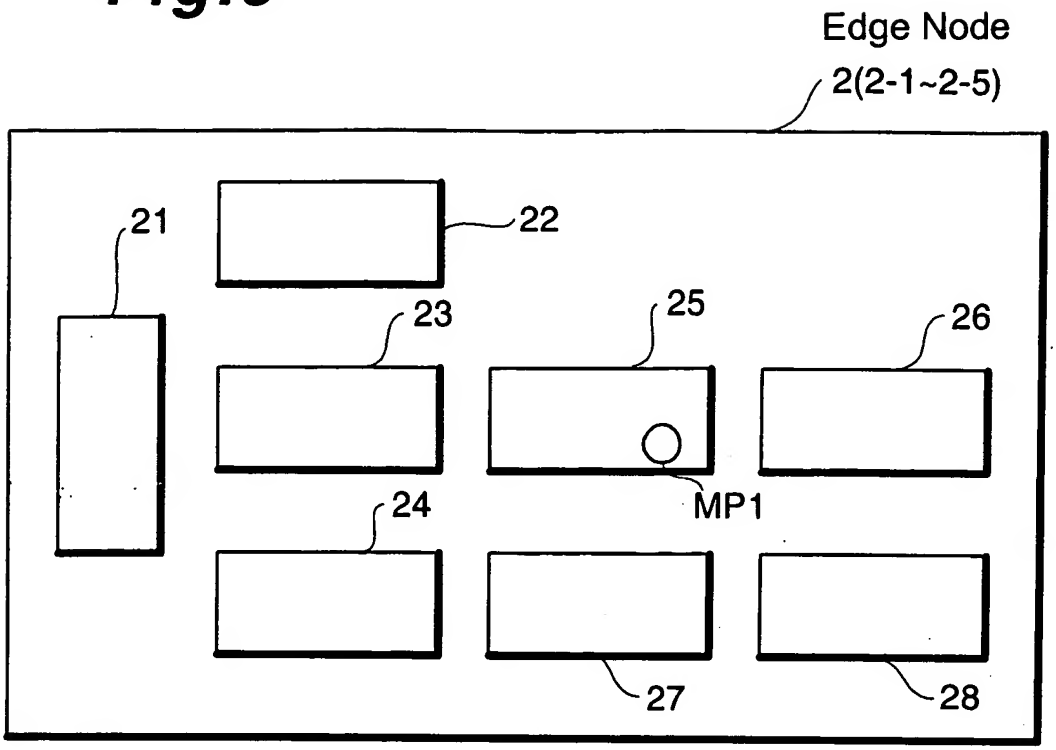
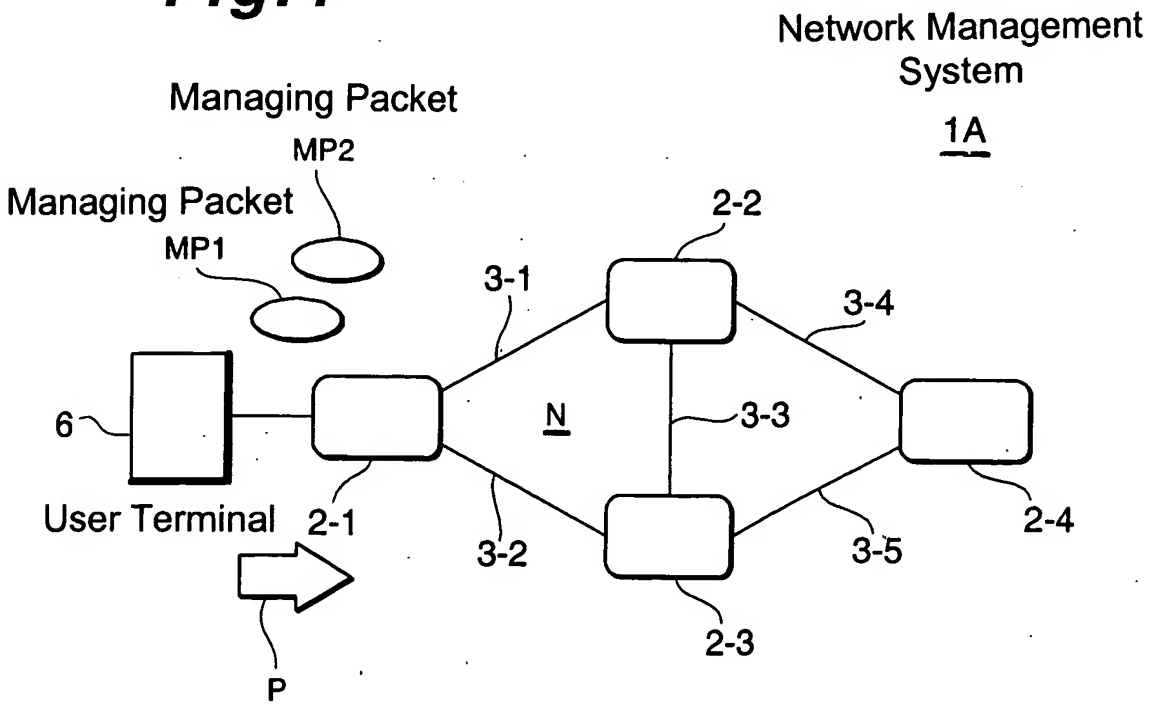

Edge Node
2(2-1~2-5)
21
22
23
25
26
MP1
24
27
28

Fig.4


Network Management System
1A
Managing Packet
MP2
Managing Packet
MP1
2-2
3-1
3-4
6
N
3-3
User Terminal
2-1
3-2
3-5
2-4
2-3
P

# Fig.5

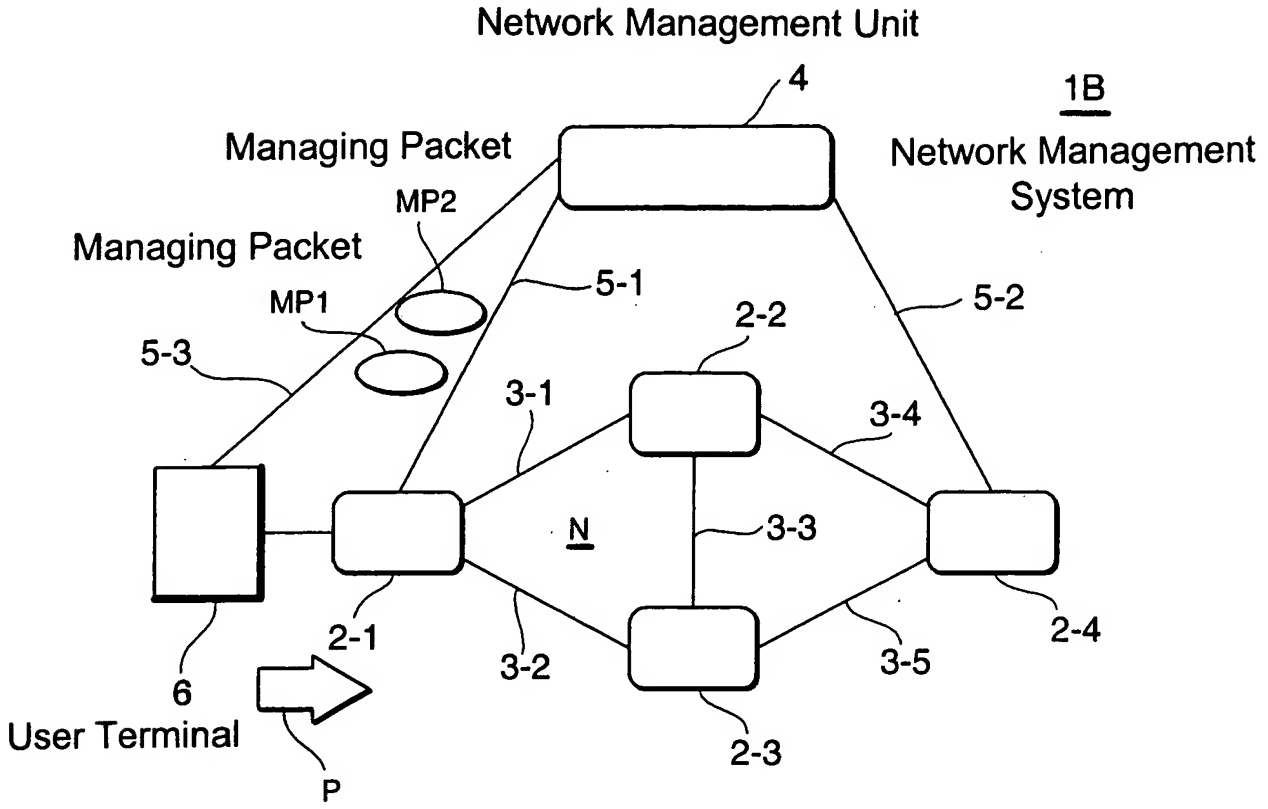

Network Management Unit
4
1B
Network Management System
Managing Packet
MP2
Managing Packet
MP1
5-1
5-2
5-3
2-2
3-1
3-4
N
3-3
2-1
3-2
3-5
2-4
2-3
6
User Terminal
P

Fig.6

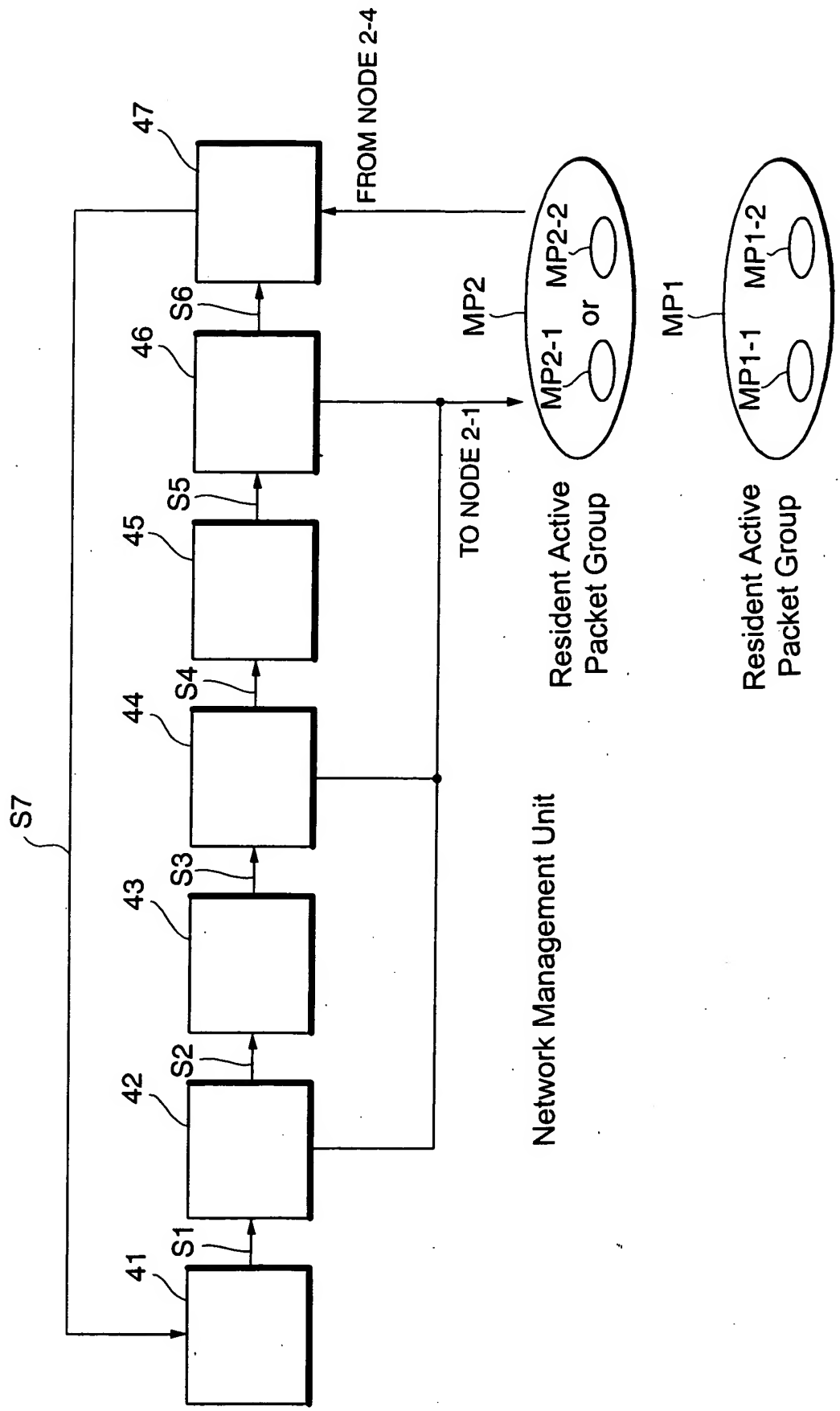

FROM NODE 2-4
47
S6
46
S5
45
S4
44
S3
43
S2
42
S1
41
S7
TO NODE 2-1
MP2
MP2-1
or
MP2-2
Resident Active Packet Group
MP1
MP1-1
MP1-2
Resident Active Packet Group
Network Management Unit

Fig. 7

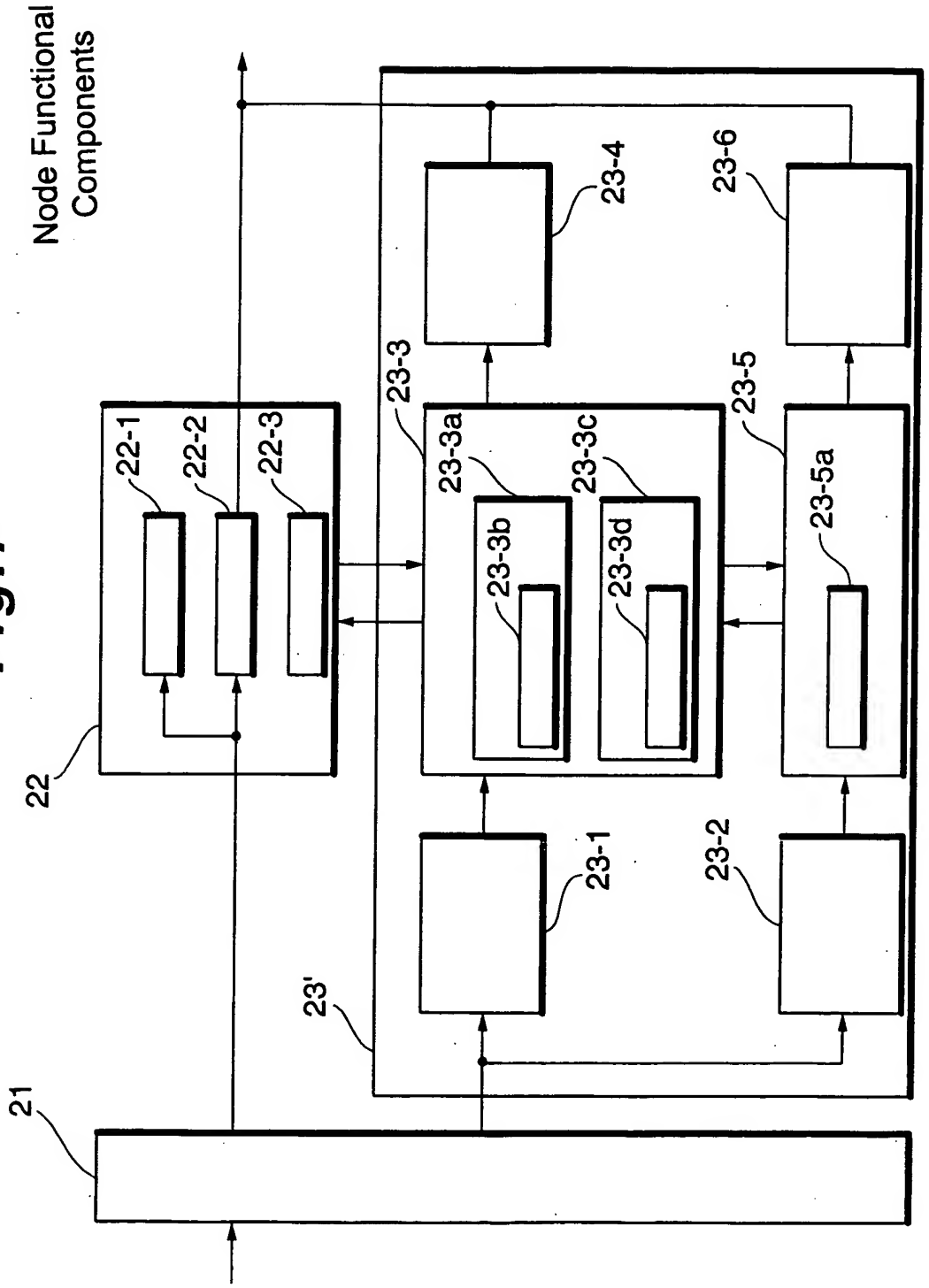

Node Functional Components
21
22
22-1
22-2
22-3
23'
23-1
23-2
23-3
23-3a
23-3b
23-3c
23-3d
23-4
23-5
23-5a
23-6

**Fig.8**

7

| Degree of importance \ Class | | ~74 Class 4 | ~75 Class 3 | ~76 Class 2 | ~77 Class 1 |
|---|---|---|---|---|---|
| | | Precedence: Emergency(100) | Precedence: Urgency(Flash Override, 100) Urgency(Flash,011) | Precedence: Immediacy(010) Priority(001) | Precedence: Ordinary(000) |
| Degree of importance (High) ~71 | Sender IP address:AAA (Low delay,high throughput) | Transmission of four packets per one time transmission. Order of transmitting 1, 31, 51 ~78 | Transmission of three packets per one time transmission. Order of transmitting 2,5, 32,35, 52,55 ~79 | Transmission of two packets per one time transmission. Order of transmitting 3,6,8, 33,36,38, 53,56,58 ~80 | Transmission of one packet per one time transmission. Order of transmitting 4,7,9,10, 34,37,39,40, 54,57,59,60 ~81 |
| Degree of importance (Middle) ~72 | Sender IP address:CCC (High throughput) | Transmission of four packets per one time transmission. Order of transmitting 11, 41 ~82 | Transmission of three packets per one time transmission. Order of transmitting 12,15, 42,45 ~83 | Transmission of two packets per one time transmission. Order of transmitting 13,16,18, 43,46,48 ~84 | Transmission of one packet per one time transmission. Order of transmitting 14,17,19,20, 44,47,49,50 ~85 |
| Degree of importance (Low) ~73 | Sender IP address:EEE (Ordinary) | Transmission of four packets per one time transmission. Order of transmitting 21 ~86 | Transmission of three packets per one time transmission. Order of transmitting 22,25 ~87 | Transmission of two packets per one time transmission. Order of transmitting 23,26,28 ~88 | Transmission of one packet per one time transmission. Order of transmitting 24,27,29,30 ~89 |

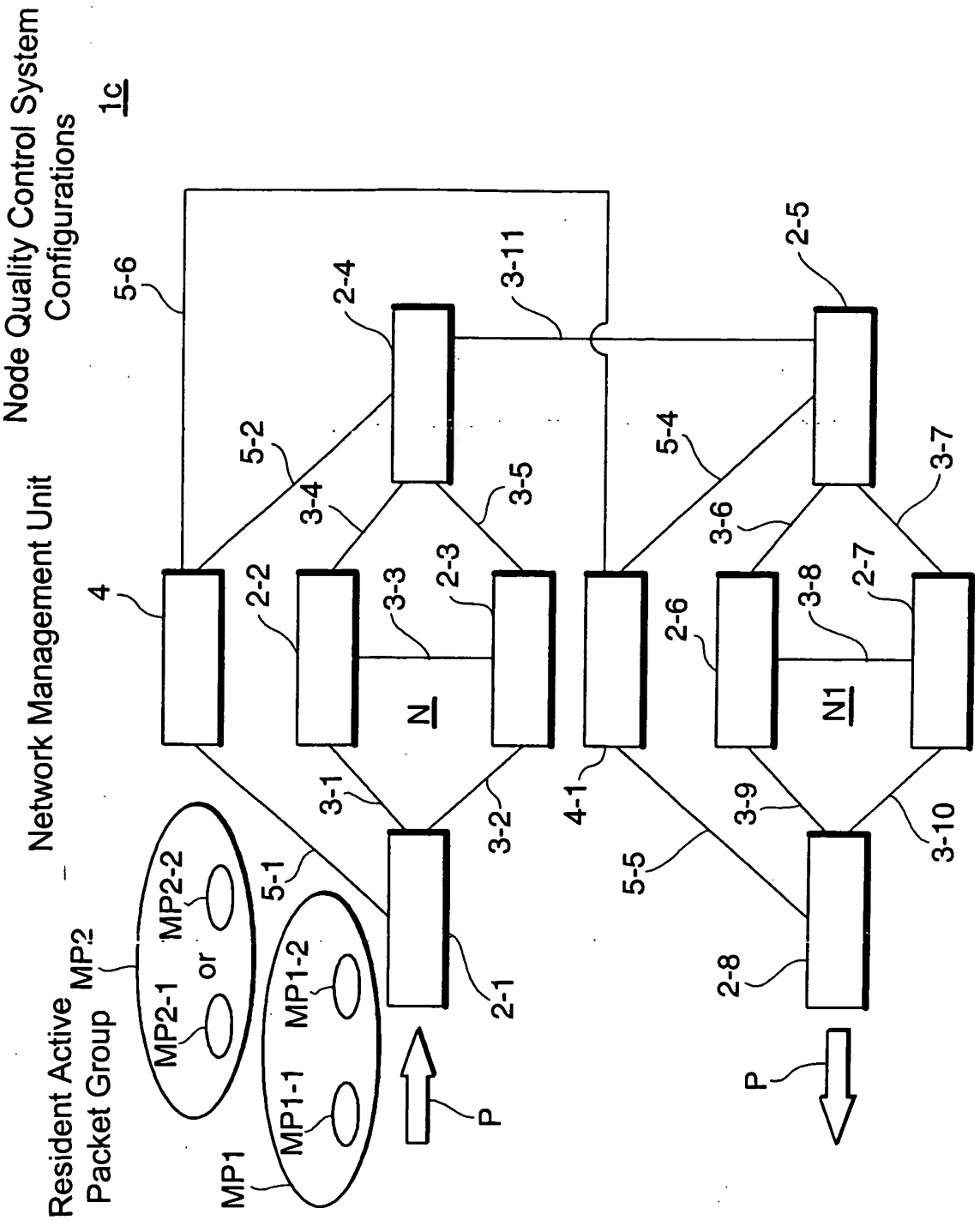
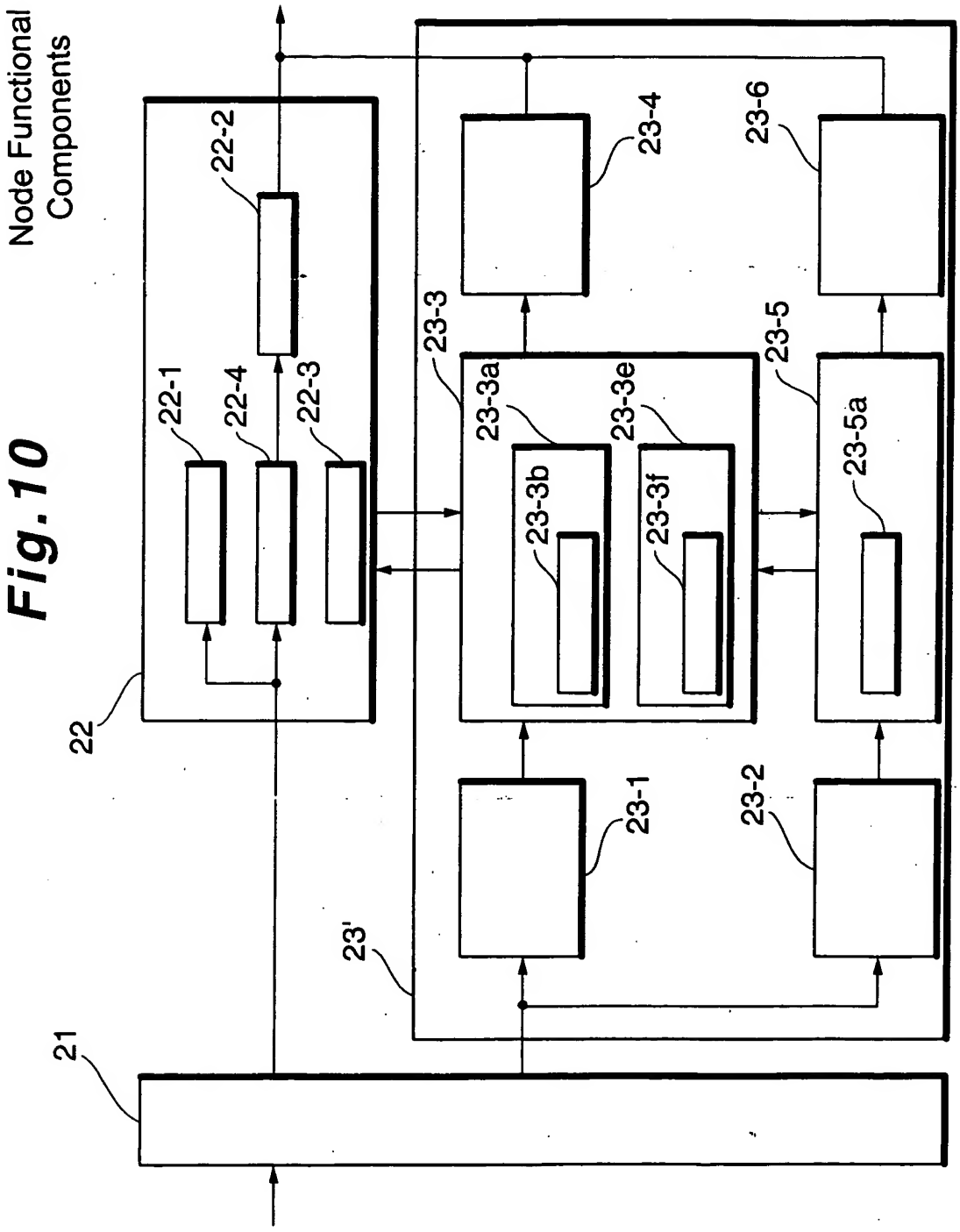

Node Quality Control System
Configurations
1c
Network Management Unit
4
5-6
2-4
3-11
2-5
5-2
3-4
3-5
5-4
3-6
3-7
2-2
3-3
2-3
2-6
3-8
2-7
N
N1
3-1
3-2
4-1
3-9
3-10
5-1
5-5
2-1
2-8
P
P
Resident Active
Packet Group
MP2
MP2-1
or
MP2-2
MP1
MP1-1
MP1-2
Resident Active
Packet Group

Fig.9

Fig.10


Node Functional Components
22-2
23-4
23-6
23-3
23-5
22-1
22-4
22-3
23-3a
23-3e
23-5a
23-3b
23-3f
22
23-1
23-2
23'
21

# Fig. 11

## [Table 7']

7'

| Value for check item / Check item | Value of check item exceeds maximum threshold value ~72 | Value of check item equal to maximum threshold value ~73 | Value of check item is minimum threshold value or more and maximum threshold or less ~74 | Value of check is minimum threshold value or less ~75 |
|---|---|---|---|---|
| Average use frequency of queuing for transfer packet in node ~71 | Transfer packet is abandoned ~71a | Transfer packets are abandoned at designated frequency ~71b | Transfer packets are abandoned depending on values of check item ~71c | Transfer packets are not abandoned ~71d |
| First option (Above check item + precedence of transfer packet) ~76 | All transfer packets are abandoned starting from packet having lower precedence ~76a | Transfer packets are abandoned starting from packet having lower precedence at designated frequency ~76b | Transfer packets are abandoned starting with packet having lower precedence, depending on average frequency of queuing as value of check item ~76c | Not transfer packets are abandoned ~76d |
| Second option (Average frequency of queuing control section of predetermined transfer packet ~77 | All predetermined transfer packets P are abandoned ~77a | Predetermined transfer packet P is abandoned by designated frequency ~77b | Predetermined transfer packet is abandoned depending on value of check item ~77c | No predetermined transfer packet P is abandoned ~77d |
| Third option (Contents provided in second option + precedence of predetermined transfer packets P) ~78 | All packets P having lower precedence are abandoned ~78a | Predetermined transfer packet is abandoned starting with packet having lower precedence with designated frequency ~78b | Predetermined transfer packet P is abandoned starting with packet having lower precedence and depending on value of check item ~78c | No predetermined transfer packet P is abandoned ~78d |

# Fig. 12

## [Table 8]

8

| Value for check item / Check item | Value of check item exceeds maximum threshold value ~82 | Value of check item equal to maximum threshold value ~83 | Value of check item is minimum threshold value or more and maximum threshold or less ~84 | Value of check is minimum threshold value or less ~85 |
|---|---|---|---|---|
| Average transmission rate in traffics of transfer packet in node ~81 | Transfer packet is abandoned ~81a | Transfer packets are abandoned at designated frequency ~81b | Transfer packets are abandoned depending on values of check item ~81c | Transfer packets are not abandoned ~81d |
| Fourth option (Above check item + precedence of transfer packet) ~86 | All transfer packets are abandoned starting from packet having lower precedence ~86a | Transfer packets are abandoned starting from packet having lower precedence at designated frequency ~86b | Transfer packets are abandoned starting with packet having lower precedence, depending on average frequency of queuing as value of check item ~86c | Not transfer packets are abandoned ~86d |
| Fifth option (Average transmission rate in traffics of predetermined packet in node) ~87 | All predetermined transfer packets P are abandoned ~87a | Predetermined transfer packet P is abandoned by designated frequency ~87b | Predetermined transfer packet is abandoned depending on value of check item ~87c | No predetermined transfer packet P is abandoned ~87d |
| Sixth option (Fifth option + precedence of predetermined transfer packet P ) ~88 | All packets P having lower precedence are abandoned ~88a | Predetermined transfer packet is abandoned starting with packet having lower precedence with designated frequency ~88b | Predetermined transfer packet P is abandoned starting with packet having lower precedence and depending on value of check item ~88c | No predetermined transfer packet P is abandoned ~88d |

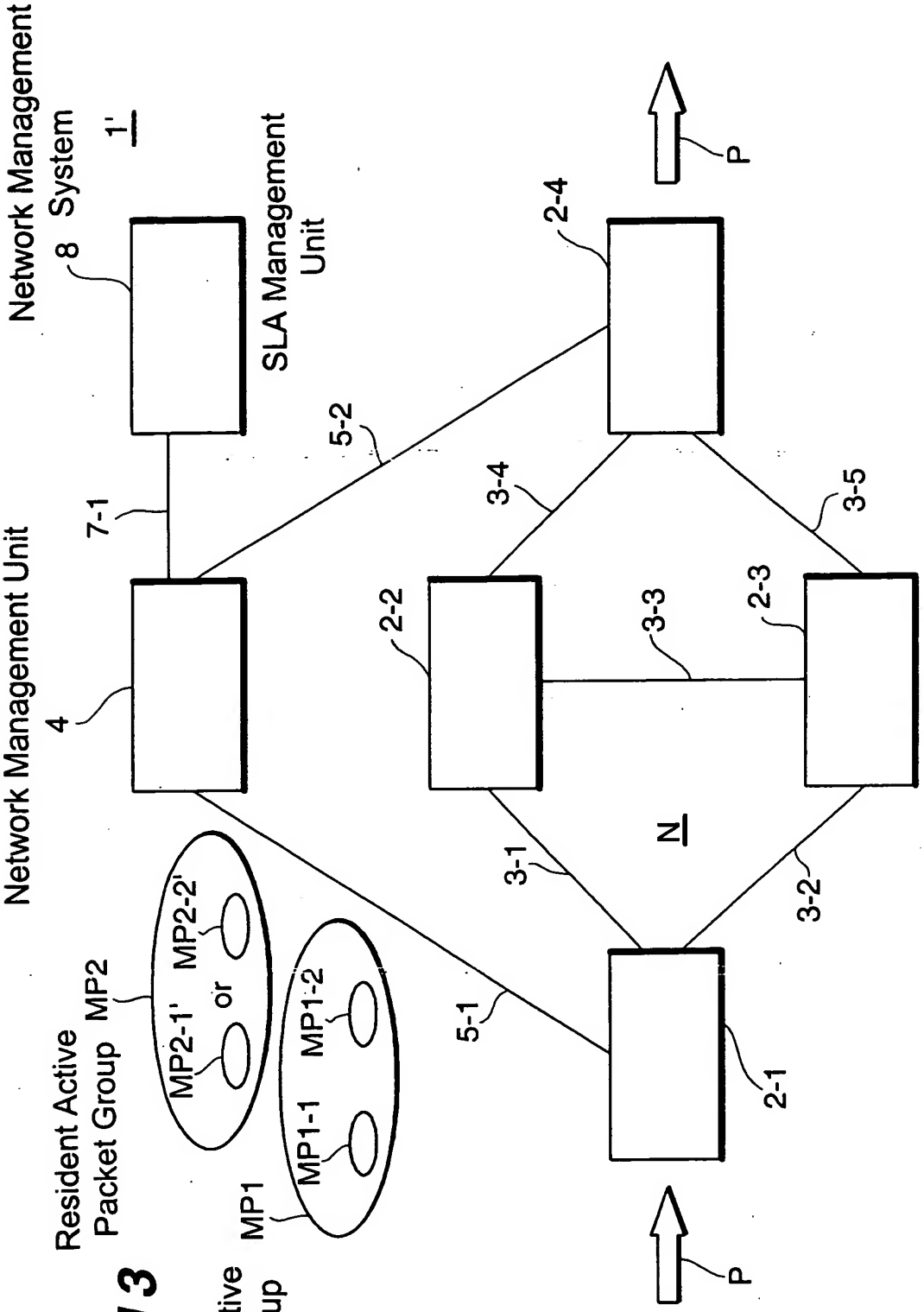

Network Management System
1'
8
SLA Management Unit
Network Management Unit
4
7-1
5-2
2-4
P
3-4
3-5
2-2
3-3
2-3
N
3-1
3-2
5-1
2-1
P
Resident Active Packet Group
MP2
MP2-1'
or
MP2-2'
MP1
MP1-1
MP1-2
Resident Active Packet Group

Fig. 13

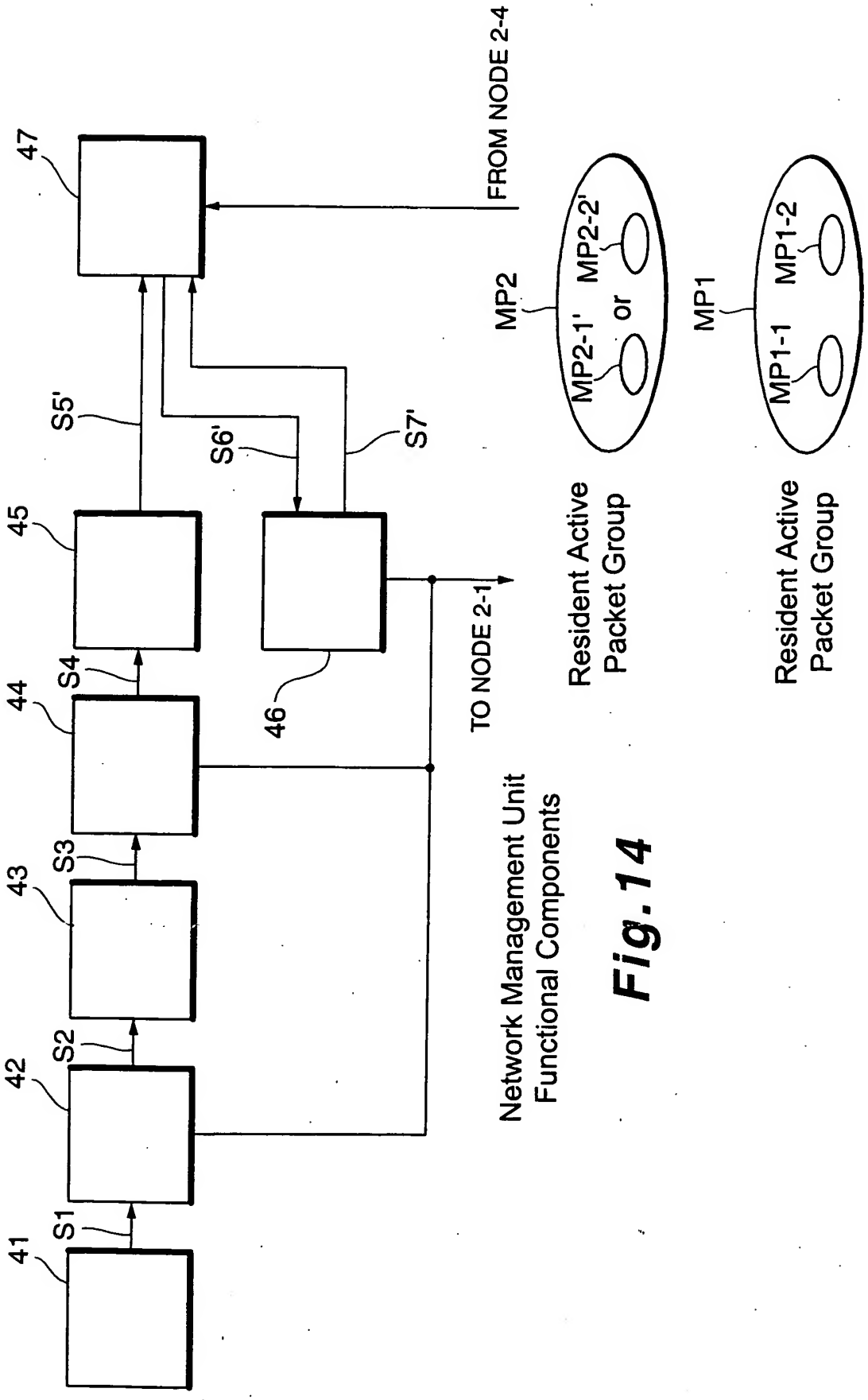
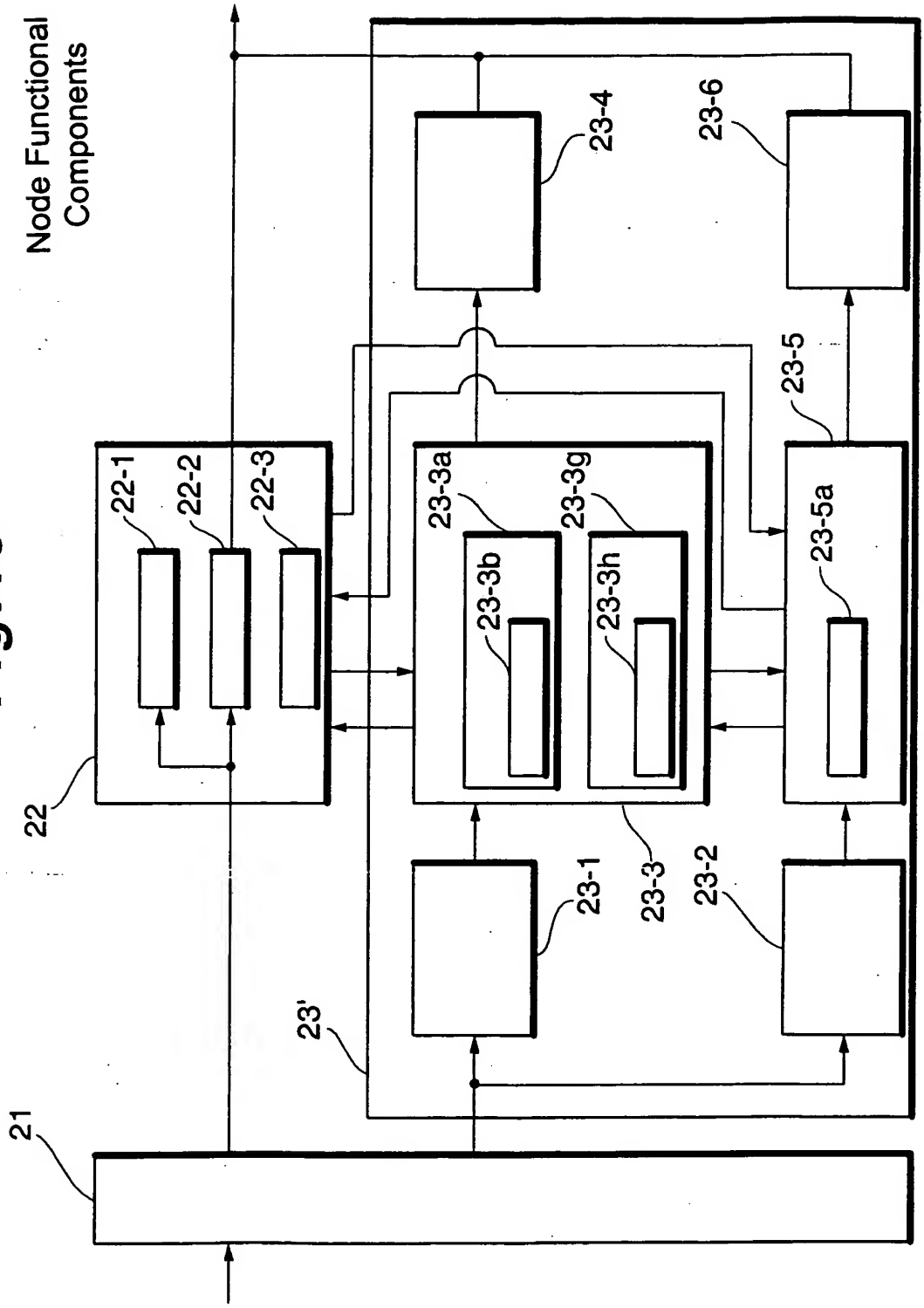

FROM NODE 2-4
47
S5'
S6'
S7'
45
46
S4
44
S3
43
S2
42
S1
41
TO NODE 2-1
Network Management Unit
Functional Components
MP2
MP2-1'
or
MP2-2'
Resident Active
Packet Group
MP1
MP1-1
MP1-2
Resident Active
Packet Group

*Fig. 14*

Fig. 15


Node Functional Components
22
22-1
22-2
22-3
23-3a
23-3b
23-3g
23-3h
23-3
23-4
23-5
23-5a
23-6
23-1
23-2
23'
21

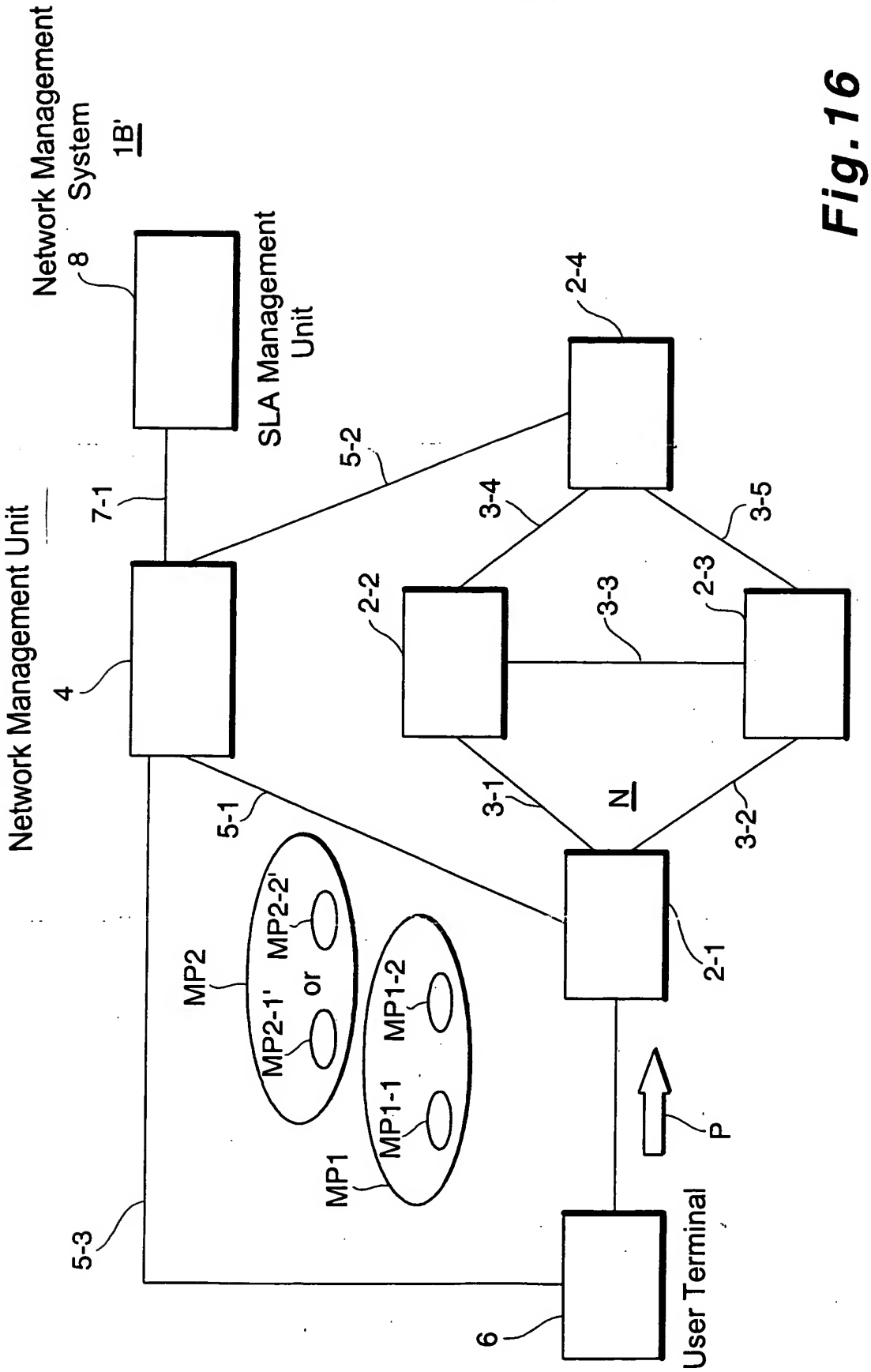

Network Management System
1B'
8
SLA Management Unit
Network Management Unit
7-1
4
5-1
5-2
5-3
2-4
2-2
2-3
3-1
3-2
3-4
3-5
3-3
N
2-1
MP2
MP2-2'
MP2-1'
or
MP1
MP1-2
MP1-1
P
6
User Terminal

Fig.16

Fig.17